A8E450-AG09-05

AC axial fan

sickled blades (S series)



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Nominal data

Type	**A8E450-AG09-05**
Motor	**M8E110-EF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	700	815
Power input	W	115	155
Current draw	A	0.6	0.7
Motor capacitor	µF	4	4
Capacitor voltage	VDB	400	400
Capacitor standard		S0 (CE)	S0 (CE)
Max. back pressure	Pa	33	43
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	80	80
Starting current	A	1.4	1.2

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

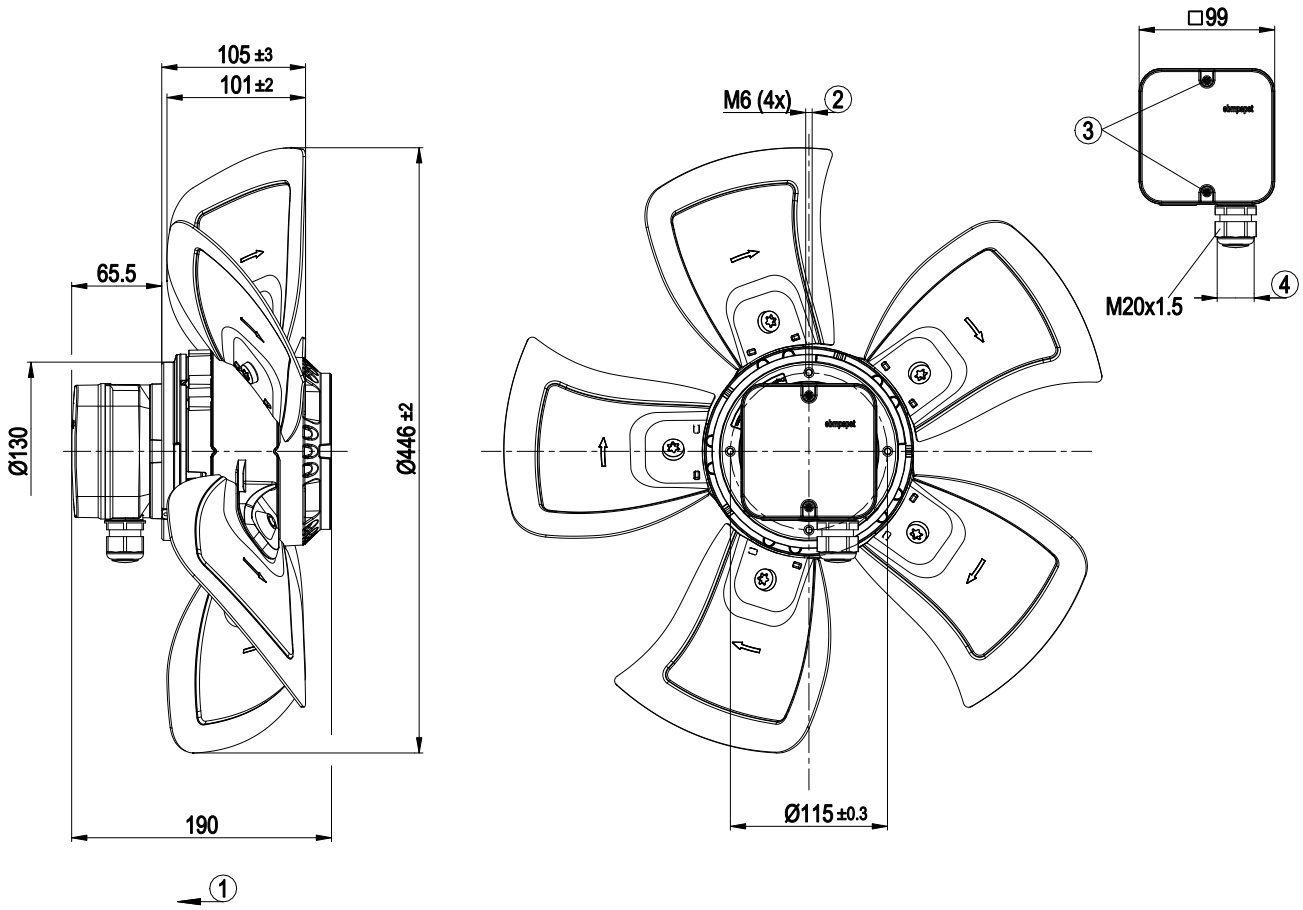
Mass	7.5 kg
Size	450 mm
Material of terminal box	PP plastic
Material of blades	Aluminium sheet
Number of blades	5
Blade angle	0°
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box, integrated capacitor connected via terminal box
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Protection class	I (if protective earth is connected by customer)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Product conforming to standard	EN 61800-5-1; CE
Approval	VDE; EAC

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Product drawing



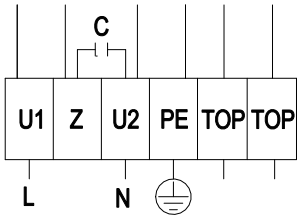
1	Direction of air flow "V"
2	Thread reach max. 12 mm
3	Tightening torque 1.5 Nm ±0.2
4	Cable diameter: min. 6 mm, max. 12 mm, tightening torque 2 Nm ±0.3

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Connection screen



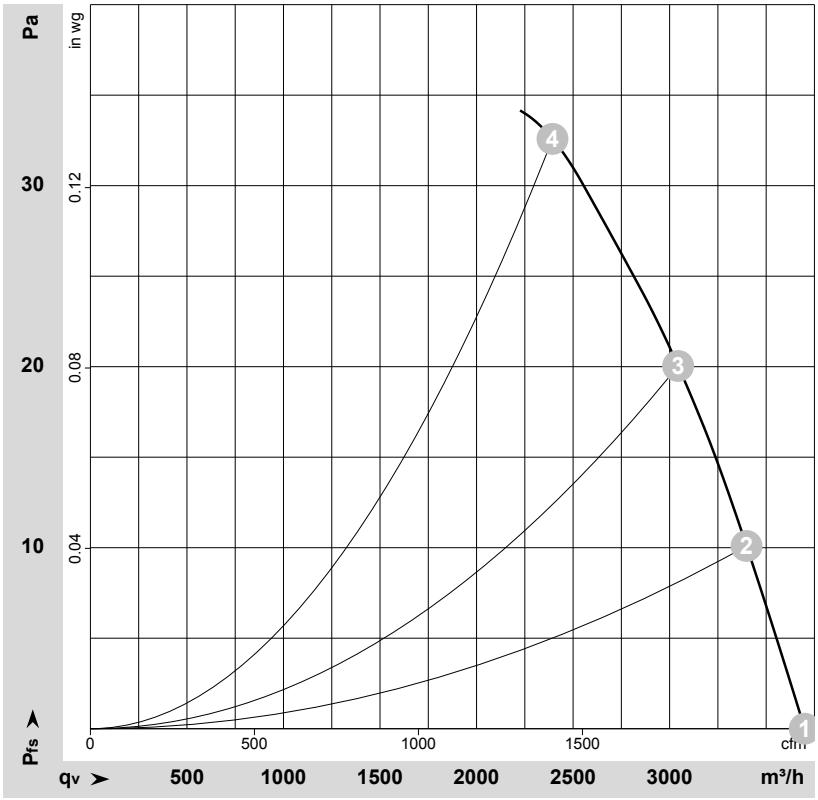
L	= U1 = blue	Z	brown	N	= U2 = black
PE	green / yellow	TOP	grey		

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-180187-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	230	50	710	105	0.54	3700	0	2180	0.00
2	230	50	710	109	0.55	3400	10	2000	0.04
3	230	50	705	112	0.56	3045	20	1790	0.08
4	230	50	700	115	0.60	2395	33	1410	0.13

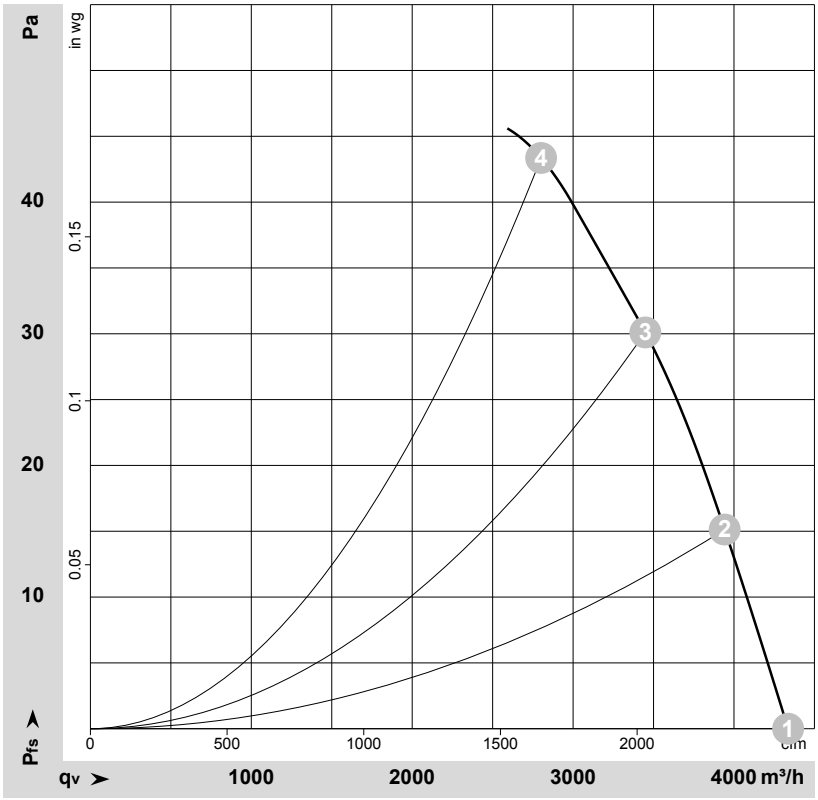
U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-180188-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	230	60	835	142	0.62	4335	0	2550	0.00
2	230	60	830	150	0.65	3940	15	2320	0.06
3	230	60	820	154	0.67	3450	30	2030	0.12
4	230	60	815	155	0.70	2800	43	1650	0.17

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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